



NW Natural, Revised Groundwater Source Control Construction Design Report Comments Letter

BAYUK Dana to: Bob Wyatt (rjw@nwnatural.com)

08/09/2012 08:04 PM

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, "Coffey, Scott", "ANDERSON Jim M", BURKHART Robert ,
GAINER Tom, LARSEN Henning, MCCLINCY Matt

From: BAYUK Dana <BAYUK.Dana@deq.state.or.us>

To: "Bob Wyatt (rjw@nwnatural.com)" <rjw@nwnatural.com>

Cc: "Patty Dost (pdost@pearllegalgroup.com)" <pdost@pearllegalgroup.com>, "John Edwards" <jedwards@anchorqea.com>, Ben Hung <bhung@anchorqea.com>, John Renda <jrenda@anchorqea.com>, "Carl Stivers (cstivers@anchorqea.com)" <cstivers@anchorqea.com>, Rob Ede <robe@hahnen.com>, "Burr, Myron" <Myron.Burr@siltronic.com>, "McCue, Tom" <Tom.McCue@siltronic.com>, "Gladstone, Alan" <AGLADSTONE@davisrothwell.com>, James Peale <jpeale@maulfooster.com>, "Ted Wall" <twall@maulfooster.com>, "'Budai, Christine M NWP'" <Christine.M.Budai@usace.army.mil>, Mark Ader/R10/USEPA/US@EPA, Chip Humphrey/R10/USEPA/US@EPA, Kristine Koch/R10/USEPA/US@EPA, Sean Sheldrake/R10/USEPA/US@EPA, "Peterson, Lance" <PetersonLE@cdmsmith.com>, "Coffey, Scott" <CoffeySE@cdmsmith.com>, "ANDERSON Jim M" <ANDERSON.Jim@deq.state.or.us>, BURKHART Robert <BURKHART.Robert@deq.state.or.us>, GAINER Tom <GAINER.Tom@deq.state.or.us>, LARSEN Henning <LARSEN.Henning@deq.state.or.us>, MCCLINCY Matt <MCCLINCY.Matt@deq.state.or.us>

3 attachments



GASCO_revised CDR Comments_with Appendix F comments_4-May-12.docx



DEQ_Modeling_Comments-Nov4_Responses&CDR_AppF-18Jul12.docx



NWN-Construction_Design_Report_Comments-09Aug12.pdf

Hello Bob.

DEQ reviewed the Revised Groundwater Source Control Construction Design Report (Construction Design Report). In addition, DEQ reviewed NW Natural's November 4, 2011 letter responding to our September 22, 2011 comments on the Revised Groundwater Source Control Interim Design Report (Revised Interim Design Report).

DEQ's letter, including the attachments, replying to NW Natural's November 4th letter and commenting on the Construction Design Report are provided below.

A signed hard copy of the letter and attachments will sent to your office early next week.

The primary purpose of the attached letter is to:

- Reply to NW Natural's November 4th responses to our September 22nd comments on the Revised Interim Design Report;
- Convey DEQ's comments on the Construction Design Report;
- Inform NW Natural that after the results of the final extraction well design steps are submitted to DEQ and following our review and approval, the overall final design of the Alluvium water-bearing zone hydraulic control and containment (HC&C) system will be complete and construction can proceed; and
- Notify NW Natural that DEQ approves the control wells, piezometers, observation wells, and monitoring wells included in the groundwater source control performance monitoring network subject to our replies to NW Natural's November 4th responses and comments to the Construction Design Report.

The specifics of the final extraction well design steps are detailed in the letter work on them is ongoing. Subsequent to providing written confirmation that DEQ's modifications to the performance monitoring network are accepted and providing the information requested in the letter, NW Natural can proceed with constructing the control wells, piezometers, observation wells, and monitoring wells in the Construction Design Report as modified.

For the reasons discussed in the letter, DEQ is not requesting the Construction Design Report to be revised and resubmitted, but DEQ will expect NW Natural to prepare a report documenting the actual completed construction of the HC&C system and performance monitoring network.

As you know, EPA reviewed the Construction Design Report. EPA also reviewed this letter and agrees with DEQ on the final extraction well design steps, DEQ's approval of the performance monitoring network as modified, and the path forward for constructing, testing, and documenting HC&C system construction and installation of the performance monitoring network. EPA also determined DEQ's letter captures their comments on the Construction Design Report. Consequently, EPA will not be requiring NW Natural to prepare a separate response to their comments.

Please feel free to contact me with questions regarding this e-mail or the attachments.

Mr. Dana Bayuk, Project Manager
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----- Message from "Wyatt, Robert" <rjw@nwnatural.com> on Mon, 3 Jan 2011 18:58:36 +0000 -----

To: ANDERSON Jim M
<ANDERSON.Jim@deq.state.or.us>

cc: BAYUK Dana <BAYUK.Dana@deq.state.or.us>

Subject: Re: 12/13/10 Gasco Dispute Mtg

Hi Jim,

Thanks for providing the additional detail on the technical issues that need to be resolved for the HC&C design. I concur with the clarifications you provided and that this agreement moves the project out of dispute resolution and back to finalizing the source control design and risk assessment.

I hope you had a great Holiday Season and look forward to a productive New Year.

Bob

From: ANDERSON Jim M [mailto:ANDERSON.Jim@deq.state.or.us]

Sent: Wednesday, December 22, 2010 10:32 AM

To: Wyatt, Robert

Cc: BAYUK Dana <BAYUK.Dana@deq.state.or.us>

Subject: RE: 12/13/10 Gasco Dispute Mtg

Bob,

I read your 12/17/10 e-mail. I appreciate NWN's decision to accept DEQ's proposal which will allow the source control project to move out of dispute resolution & back into project planning & design. Your 12/17 e-mail communicates NWN's perspective on certain aspects of DEQ's proposal..., several of which I want to clarify & present as expectations before we meet in January 2011. I believe the 2 meetings we're contemplating in 1/11 represent the best forum for identifying, discussing, & most importantly resolving technical issues associated with HC&C & the risk assessment. My clarifications are embedded in your 12/17 e-mail below & are presented in **red italic** font.

I hope this e-mail closes our formal dispute. Let's plan on talking after you return from holiday travels to arrange meeting dates & times &..., along with the technical leads..., begin to develop central meeting topics. I look forward to productive project planning meetings & getting to important source control & cleanup..., as I know you do too.

Hope you & yours have a safe, happy holiday.

Jim Anderson

Manager, DEQ Portland Harbor Section

ph: 503.229.6825

fax: 503.229.6899

cell: 971.563.1434

From: Wyatt, Robert [mailto:rjw@nwnatural.com]

Sent: Friday, December 17, 2010 11:54 AM

To: ANDERSON Jim M

Cc: BAYUK Dana; DECONCINI Nina; PEDERSEN Dick; Kirkpatrick, Margaret

Subject: RE: 12/13/10 Gasco Dispute Mtg

Hi Jim,

Thanks very much for the meeting summary and outline of the DEQ proposed path forward. I appreciate the time and thought that clearly went into your proposal. As you know, NW Natural is interested in reaching final resolution on the dispute. Based on our telephone conversation this morning I am providing the following re-statement of the key points from our meeting on Monday that NW Natural agrees would

represent that resolution. I think it is consistent with your proposal, but if there are differences please give me a call so we can discuss them further.

NW Natural agrees that the following path forward provides a good resolution for the dispute, with the understanding that all of the conditions and next steps must be completed successfully.

NW Natural understands that we will develop and submit a final design for the HC&C system along the entire length of both Segments 1 and 2. Prior to submittal of that final design the following conditions must be met:

1. Resolution of remaining design details related specifically to the HC&C system raised during DEQ review of the interim design report. DEQ will want to include discussion/concerns we have with NWN's revised HC&C proposal presented to us in a 5/17/10 technical meeting..., & not only our 3/26/10 comments on NWN's 11/09 Interim Design Report. I suggest the 1/11 meeting we're planning focus on technical issues to be resolved to evaluate, plan, & design HC&C along the disputed portion of Segment 1.
2. Agreement on a monitoring program for the HC&C system that will be used to determine system effectiveness and include criteria for monitoring DNAPL movement. NW Natural has proposed a monitoring program to DEQ for this purpose and understands that DEQ will provide specific revisions to supplement or modify that program. NW Natural understands that if significant DNAPL migration is observed that DEQ may require additional interim action. If significant DNAPL migration is not observed NW Natural understands that DNAPL management will be fully addressed in the upland FS. DEQ agrees with NWN that an essential element of designing the HC&C along the disputed portion of Segment 1 is a monitoring program which evaluates the system performance & effectiveness..., including assessing DNAPL movement over time. NWN indicates a monitoring program proposal has already been submitted to DEQ for this purpose & understands DEQ will provide specific revisions to supplement or modify that program. DEQ believes this item should be one of central topics discussed during the 1/11 meeting. The only monitoring program DEQ is aware of NWN having submitted is included in the Interim Design Report, which did not contemplate the 5/17/10 HC&C re-design concept. Given the current status of the HC&C interim design, DEQ anticipates NWN will update the groundwater source control interim design with the 5/17 re-design concept. The update will include evaluating the performance & effectiveness of HC&C through monitoring the system's hydraulic influence, trends in groundwater data, & DNAPL movement.
3. NW Natural and DEQ will develop a path forward to complete the Risk Assessment. It is a mutual goal of both NW Natural and DEQ to complete the Risk Assessment in order to expedite the development of the upland FS. This objective will minimize the amount of time the HC&C system operates prior to construction of final remedy, including DNAPL management. NW Natural also strongly believes expediting the upland FS is critical for overall project sequencing required in the broader context of Portland Harbor and the Gasco Sediment Remedy.

NW Natural agrees that technical meetings in January 2011 are crucial for getting the conditions resolved and completing the final design. I also appreciate your acknowledgement of our concerns regarding the current DEQ preference for additional data collection prior to completing the risk assessment. In addition to the technical issues you noted we also are concerned that it has schedule implications that affect the amount of time the HC&C system will operate before the upland FS can be prepared. Having said that, NW Natural agrees to be open to the DEQ request for additional data collection and the attendant schedule impacts, with the understanding that DEQ will consider our concerns before making a final decision.

If I have captured the concept we discussed accurately NW Natural is prepared to moved forward with this resolution to the dispute. If you think we should further discuss and clarify any of the elements of the agreement before finalizing the process please let me know.

Jim, I appreciate your efforts on this challenging issue and am looking forward to collaboratively reaching the major milestone of implementing source control at Gasco.

Bob

From: ANDERSON Jim M [ANDERSON.Jim@deq.state.or.us]

Sent: Wednesday, December 15, 2010 4:21 PM

To: Wyatt, Robert

Cc: BAYUK Dana; DECONCINI Nina; PEDERSEN Dick

Subject: 12/13/10 Gasco Dispute Mtg

Bob,

Thanks for meeting with me Monday morning. The purpose of this e-mail is to summarize DEQ's proposal regarding HC&C & capture the important agreements we reached during our 12/13/10 meeting. I understand you discussed our meeting with Margaret K, & she was..., at least initially..., supportive of our agreements.

During our meeting, I indicated DEQ is willing consider modifying our direction to NWN (made 6/11/10 by e-mail) which defers evaluation HC&C along the portion of shoreline Segment 1 where DNAPL occurs to the uplands FS. To us, this is the central issue being disputed. As an alternative to DEQ's 6/11 direction, I proposed that NWN incorporate HC&C along the disputed section of shoreline Segment 1 into the final groundwater source control design document. In other words, in addition to completing the design of HC&C along the southern portion of Segment 1 on the Siltronic property & all of the shoreline Segment 2 on the Gasco site..., NWN would have the opportunity to include the disputed portion of Segment 1 in the final source control design documents (i.e., not defer evaluation of HC&C along the disputed portion of shoreline Segment 1 to the uplands FS).

I presented 3 conditions for my proposal:

1) Technical issues with HC&C along the disputed portion of shoreline Segment 1 must be addressed during final design.

2) NWN must agree to a scope & schedule for completing the Gasco site risk assessments & move into the uplands FS as soon as practicable.

3) The uplands FS must fully evaluate remedial action alternatives for DNAPL associated with former tar ponds area(s), including actions such as barrier walls, removal, solidification/stabilization, etc.

We also discussed the next steps to moving source control final design & the risk assessments forward as follows:

Step 1- NWN decides whether to accept this proposal (due ASAP).

Step 2- DEQ/NWN schedule a manager/technical staff meeting in 1/11 to review the status of groundwater source control, discuss the issues with HC&C along the disputed portion of Segment 1, & talk about the content of the groundwater source control final design document.

Step 3- DEQ/NWN schedule manager/technical staff meeting in 1/11 to discuss the path forward for completing the risk assessments.

Regarding Step 3, as I indicated during our 12/13 meeting, in addition to allowing NWN to evaluate uplands DNAPL removal & the vertical barrier in the uplands FS, DEQ believes we are making another significant concession by allowing NW to include HC&C along the disputed section of shoreline Segment 1 in the source control final design document. Although I understand your concerns regarding DEQ's approach to completing the risk assessments (e.g., collecting samples for TPH fractions analyses) & whether it will help us make better cleanup decisions..., we expect NWN to be open to accepting DEQ's recommendations made in the interest of finishing a complete risk assessment that supports the upland FS.

Jim Anderson

Manager, DEQ Portland Harbor Section

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----- Message from BAYUK Dana <BAYUK.Dana@deq.state.or.us> on Wed, 18 Jul 2012 23:00:43 +0000

To: 'John Edwards' <jedwards@anchorqea.com>

'Ben Hung' <bhung@anchorqea.com>, 'John Renda' <jrenda@anchorqea.com>, 'Michael Riley' <mriley@anchorqea.com>, 'Carl Stivers' <cstivers@anchorqea.com>''

<cstivers@anchorqea.com>, 'Sean Sheldrake' <Sheldrake.Sean@epamail.epa.gov>,

cc: 'Peterson, Lance' <PetersonLE@cdmsmith.com>, 'Coffey, Scott'

<CoffeySE@cdmsmith.com>, 'GAINER Tom' <GAINER.Tom@deq.state.or.us>, LARSEN Henning <LARSEN.Henning@deq.state.or.us>

Subject: NW Natural, DEQ's Construction Design Groundwater Modeling Comments

Hello John.

DEQ completed our review of Appendix F (Groundwater Model Documents) of the Construction Design Report (see footnote #1). DEQ's review included the supplement titled, "NW Natural Gasco Site: Documentation of Groundwater Model Modifications Since 2008" dated April 12, 2012 (April 12th Memorandum). DEQ's comments on the April 12th Memorandum are attached to this e-mail.

The attachment also replies to NW Natural's November 4, 2011 responses to DEQ's groundwater modeling comments included in our September 22, 2011 letter commenting on the Revised Interim Design Report (see footnote #2).

In addition to DEQ's comments on groundwater modeling, EPA's comments on the overall Construction Design Report, including Appendix F, are attached.

As Anchor requested during our meeting on July 2, 2012, DEQ is providing comments on groundwater modeling to facilitate Anchor's modifications and updates to the MODFLOW model currently being used to support the final design of the Alluvium WBZ HC&C system. DEQ understands from the July 2nd meeting, updating the MODFLOW model is a current priority for Anchor.

For your information, DEQ is preparing a letter commenting on the design of the groundwater source control performance monitoring program proposed in the Construction Design Report, including the numbers, locations, and depths of monitoring wells and piezometers in the program. This letter will provide DEQ's perspective on the overall status of the "Framework" for finalizing the design of the Alluvium WBZ HC&C system and performance monitoring program.

As you know, NW Natural proposed the 5-step Framework in a letter dated November 4, 2011 that also responds to DEQ's September 22, 2011 comments letter. Step 2 of the Framework involves finalizing the designs of the HC&C system and performance monitoring network. Construction and initial testing of the HC&C system will be conducted under Step 3 and is scheduled for completion by the end of 2012. DEQ accepted the Framework as modified by our letter dated December 7, 2011. The December 7th letter should be referred to for additional details regarding DEQ's objectives for planning, designing, and constructing groundwater source control measures.

DEQ requests a meeting be arranged as soon as practicable to discuss the modeling comments included in the attachments. Please feel free to contact me with questions regarding this e-mail and/or the attachments, or to discuss dates for the proposed meeting.

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Footnote #1. Anchor QEA, LLC, "Revised Groundwater Source Control Construction Design Report, NW Natural Gasco Site," January 2012 (received January 31, 2012), a report prepared for NW Natural.

Footnote #2. Anchor QEA, LLC, 2011, "Draft Groundwater Source Control Final Design Report, NW Natural Gasco Site," May (received May 9th), a report prepared on behalf of NW Natural (DEQ recognizes

the document as being the equivalent of the Revised Groundwater Source Control Interim Design Report)